

**BY ORDER OF THE CHIEF,
NATIONAL GUARD BUREAU**



MANPOWER STANDARD 23DISO

1 DECEMBER 2004

Manpower Standard

ENVIRONMENTAL/ELECTRICAL EC-130E (RIVET RIDER)

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This Air National Guard Manpower Standard (ANGMS) quantifies the manpower required to accomplish the tasks described in the process oriented description (POD) for varying levels of workload in the Environmental/Electrical EC-130E (Rivet Rider). This ANGMS applies to the Environmental/Electrical EC-130E, Rivet Rider mission only, at the 193rd SOW, PA. This standard applies to peacetime operations only. The Air National Guard (ANG) is the authority for the approval and publication of ANG Manpower Standards. Air Force (AF) and ANG directives contain policy and procedural guidance for the operation of the Rivet Rider function. This standard was developed in accordance with AF Instruction (AFI) 38-201, *Determining Manpower Requirements*, and AF Manual (AFMAN) 38-208, Volume 1, *Air Force Management Engineering Program (MEP) - Processes*, and AFMAN 38-208, Volume 2, *Air Force Management Engineering Program (MEP) - Quantification Tools*. Send comments and suggested improvements on AF IMT 847, *Recommendation for Change of Publication*, through channels, to ANG, Management Engineering Branch (ANG/XPME/Operating Location TN [OLTN]), 106 Briscoe Drive, McGhee Tyson ANG Base, TN 37777-6283.

1. STANDARD DATA.

1.1. Approval Date: 1 December 2004.

1.2. Man-hour Data Source: Operational Audit method (historical record and technical estimate techniques).

1.3. Standard Man-hour Equation: $Y = 374.2 + 1.470(X1) + 32.91(X2)$.

1.4. Workload Factor.

1.4.1. Titles:

1.4.1.1. X1 = A Programmed Flying Hour.

1.4.1.2. X2 = A Primary Aircraft Vehicle Authorized.

1.4.2. Definition:

1.4.2.1. X1 = Monthly number of flying hours programmed.

1.4.2.2. X2 = Average monthly primary aircraft authorized.

1.4.3. Source: USAF Program Document (PD), Volume II maintained by ANG/XPPI.

1.4.4. Points of Contact.

1.4.4.1. Functional: Lt Col Robert Hoback, ANG/LGY

1.4.4.2. Manpower: Mr. Steve Griffith, XPME, Engineering Branch

2. APPLICATION INSTRUCTIONS.

2.1. Step 1. Man-hour Equation. Apply the man-hour equation in Paragraph 1.3., to determine required man-hours.

2.2. Step 2. Man-hour Availability Factor (MAF). Divide the resulting man-hours by the appropriate MAF times the overload factor.

2.3. Step 3. Upper and Lower Extrapolation Limits:

2.3.1. $Y_U = 894.53$

2.3.2. $Y_L = 536.73$

2.4. Step 4. Air Force Specialty Codes (AFSC) Requirement. Use the Manpower Table Attachment 3 to determine required AFSCs.

3. STATEMENT OF CONDITIONS. The conditions listed below had no affect on the development of this standard: minimum response rates, minimum manpower levels, standardized crew complements, safety considerations, aircraft turn-around time, length of waiting periods, levels of backlog and hours of operation.

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Director, Air National Guard

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFI 38-201, *Determining Manpower Requirements*

AFMAN) 38-208, Volume 1, *Air Force Management Engineering Program (MEP)-Processes*

AFMAN 38-208, Volume 2, *Air Force Management Engineering Program (MEP) - Quantification Tools*

Abbreviations and Acronyms

AF - Air Force

AFSC - Air Force Specialty Codes

ANG - Air National Guard

ANGMS - Air National Guard Manpower Standard

FMB - Financial Management Board

MAF - Man-hour Availability Factor

MEP - Management Engineering Program

PD - Program Document

POD - Process Oriented Description

TCTO - Time Compliance Technical Order

UHF - Ultra High Frequency

UTA - Unit Training Assembly

WLF - Work Load Factors

Terms

Air National Guard Manpower Standard (ANGMS). A numbered, specialized publication that quantifies manpower requirements for a work center. Also includes approved variances. See AFI 38-201.

Man-hour. A unit of measuring work. It is equivalent to one person working at a normal pace for 60 minutes, two people working at a normal pace for 30 minutes, or a similar combination of people working at a normal pace for a period to time equal to 60 minutes.

Manpower Standard. The basic tool used to determine the minimum level of manpower required to support a function. It is a quantitative expression that represents a work center's man-hour requirements in response to varying levels of workload.

Process Oriented Description. A format that shows work center responsibilities structured for easy measurement of work categories, tasks and subtasks.

Attachment 2

**PROCESS ORIENTED DESCRIPTION
COMMUNICATIONS/NAVIGATION**

Table A2.1. Listing of Functional Processes.

1.	ON EQUIPMENT MAINTENANCE.
1.1	MAINTAINS ELECTRICAL/ENVIROMENTAL SYSTEM.
1.1.1	MAINTAINS AIRFRAME.
1.1.2.	MAINTAINS COCKPIT AND FUSELAGE COMPARTMENT.
1.1.3.	MAINTAINS LANDING GEAR.
1.1.4.	MAINTAINS FLIGHT CONTROL.
1.1.5.	MAINTAINS TURBO PROPELLER POWER PLANT.
1.1.6.	MAINTAINS AUXILLIARY POWER PLANT.
1.1.7.	MAINTAINS HYDRAULIC PROPELLER.
1.1.8.	MAINTAINS AIR CONDITIONING, PRESSURIZATION AND SURFACE ICE CONTROL.
1.1.9.	MAINTAINS POWER SUPPLY.
1.1.10.	MAINTAINS LIGHTING SYSTEM.
1.1.11.	MAINTAINS HYDRAULIC AND PNEUMATIC POWER SUPPLY.
1.1.12.	MAINTAINS FUELS SYSTEM.
1.1.13.	MAINTAINS OXYGEN SYSTEM.
1.1.14.	MAINTAINS MISCELLANEOUS UTILITIES.
1.1.15.	MAINTAINS INSTRUMENT.
1.1.16.	MAINTAINS WINDSHEILD/WINDSHEILD WIPER.
1.1.17.	MAINTAINS UHF COMMUNICATION.
1.1.18.	MAINTAINS AIR BURBINE MOTOR SYSTEM.

1.2.	PERFORMS INSPECTION.
1.2.1.	PERFORMS SPECIAL INSPECTION.
1.2.2.	PERFORMS HOMESTATION CHECK.
1.2.3.	PERFORMS ACCEPTANCE INSPECTION.
1.2.4.	PERFORMS ISOCHRONAL INSPECTION.
1.2.4.1.	PERFORMS MAJOR ISOCHRONAL INSPECTION.
1.2.4.2.	PERFORMS FIRST MINOR INSPECTION.
1.2.4.3.	PERFORMS SECOND MINOR INSPECTION.
1.2.4.4.	PERFORMS THIRD MINOR INSPECTION.
2.	OFF-EQUIPMENT MAINTENANCE.
3.	PERIODIC MAINTENANCE OF ELECTRICAL EQUIPMENT IN BASE SUPPLY.
4.	NONPOWERED AEROSPACE GROUND EQUIPMENT.
5.	SHOP SUPPORT GENERAL CODE.
6.	GROUND HANDLING, SERVICING AND RELATED TASK.
7.	ASSISTANCE.
8.	TIME COMPLIANCE TECHNICAL ORDER (TCTO).
9.	BENCH STOCK MAINTENANCE.
10.	FOREIGN OBJECT DAMAGE WALK/INSPECTION.
11.	AIRCREW DEBRIEFING.
12.	AIRCRAFT DOCUMENTATION.
13.	TECHNICAL DATA SUB ACCOUNT MAINTENANCE.
14.	HAZARDOUS WASTE MANAGEMENT.
14.1.	PROCESSES HAZARDOUS WASTE.
14.2.	MAINTAINS ACCUMULATION POINT.

14.3.	MAINTAINS PROTECTIVE EQUIPMENT.
15.	SPECIAL PLANNING OR SCHEDULING.
15.1.	PREPARES FOR UNIT TRAINING ASSEMBLY.
15.2.	PREPARES FOR MOBILITY/DEPLOYMENT.
15.3.	PREPARES FOR AND/OR PERFORMS SPECIAL PROGRAMS.
16.	TRAVEL.
17.	INDIRECT. Indirect work involves those tasks that are not readily identifiable with the work center's specific product or service. The major categories of standard indirect work are: Administers Civilian, Officer, and Enlisted Personnel; Directs Work Center Activity; Provides Administrative Support; Prepares for and Conducts/Attends Meeting; Administers Training; Manages Supplies; Maintains Equipment; and Performs Cleanup.

Attachment 3

MANPOWER TABLE

Table A3.1. Standard Manpower Table.

WORK CENTER/FAC Environmental/Electrical 23D1SO		APPLICABILITY MANHOUR RANGE 536.73 – 894.54					
Air Force Specialty Title	AFSC	Grade	Manpower Requirement				
Acft Elect Supvr	2A300	Civ	1	1	1		
Acft Electrician	2A6X6	Civ	3	4	5		
Total			4	5	6		

NOTE. AFSCs may be adjusted at the discretion of the Commander.